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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,668	12/06/2001	Ian A. W. Bell	2001L007	8684

7590 12/18/2002  
Infineum USA L.P.  
Law Department  
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Linden, NJ 07036-0710

EXAMINER

MCAVOY, ELLEN M

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 12/18/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/010,668

Applicant(s)

BELL ET AL.

Examiner

Ellen M McAvoy

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Application/Control Number: 10/010,668  
Art Unit: 1764

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emert et al (5,756,428).

Emert et al ["Emert"] disclose hydrocarbyl substituted  $C_4$  to  $C_{10}$  monounsaturated dicarboxylic acid, anhydrides or esters, preferably polyisobutenyl succinic anhydride, prepared by reacting a polymer of  $C_2$  to  $C_{10}$  monoolefin with a  $C_4$  to  $C_{10}$  monounsaturated acid, anhydride or ester such that there are 1.2 to 2.0 dicarboxylic acid producing moieties per molecule of olefin polymer. Emert teaches that the resulting materials may be further reacted with amines, alcohols, amino alcohols, boric acid, etc., to form dispersants useful in oleaginous compositions. The examiner is of the position that Emert clearly meets the limitations of the dispersant of independent claim 1. The olefin polymer has a number average molecular weight of 700 to 1200 and includes olefins such as butylene and isobutylene. See column 5, lines 12-50. This differs from the range of 1800 to 3000 set forth in dependent claim 2. The amine compounds suitable as nucleophilic reactants are preferably polyalkylene polyamines having from 3 to 9 nitrogen atoms in the molecule. See column 6, lines 25 et. seq. Emert teaches that the nitrogen containing dispersants are suitable as additives to oleaginous compositions such as fuels and lubricating oils or can be further treated by boration to form borated dispersants. See column 8, line 30-57. The

compositions may be in the form of concentrates and Emert allows for the addition of conventional additives to the compositions such as antiwear agents, antioxidants and detergents. See column 12, line 9 to column 16. The examiner is of the position that Emert clearly meets the limitations of the above rejected claims.

***Claim Rejections - 35 USC § 103***

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meinhardt et al (4,234,435).

Meinhardt et al [“Meinhardt”] disclose carboxylic acid acylating agents derived from polyalkylenes such as polybutenes, and a dibasic, carboxylic reactant such as maleic or fumaric acid or certain derivatives thereof. The acylating agents are characterized in that the polyalkenes from which they are derived have a  $M_n$  value of about 1300 to about 5000 and a  $M_w/M_n$  value of about 1.5 to about 4. See column 5, lines 55-65. The acylating agents are further characterized by the presence within their structure of at least 1.3 groups derived from the dibasic, carboxylic reactant for each equivalent weight of the groups derived from the polyalkene. The acylating agents can be reacted with polyethylene polyamines and polyols to produce derivatives useful per se as lubricant additives or as intermediates to be subjected to post-treatment with various other compounds including boron oxide and boron acids. See column 4, lines 24-50. The examiner is of the position that Meinhardt clearly meets the limitations of the claims.

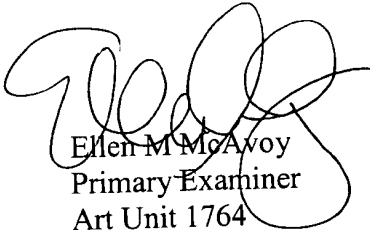
***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M McAvoy whose telephone number is (703) 308-2510. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (703) 308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Ellen M McAvoy  
Primary Examiner  
Art Unit 1764

EMcAvoy  
December 11, 2002